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STUDY PROJECT

THE ENVIRONMENTAL COMPLIANCE CHALLENGE FOR THE ARMY AND THE ARMY NATIONAL GUARD

BY

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21 May 1992

U.S. ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013-5050

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

a. REPORT SECURITY CLASSIFICATION: Unclassified	1b. RESTRICTIVE MARKINGS
a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION/AVAILABILITY OF REPORT: Approved for public release; distribution is unlimited.
b. DECLASSIFICATION/DOWNGRADING SCHEDULE	
. PERFORMING ORGANIZATION REPORT NUMBER(S)	5. MONITORING ORGANIZATION REPORT NUMBER(S)
a. NAME OF PERFORMING ORGANIZATION: U.S. Army War College; 6b. OFFICE SYMBOL (If applicable): AWCA	7a. NAME OF MONITORING ORGANIZATION
c. ADDRESS (City, State, and ZIP Code): Carlisle Barracks, PA 17013-5050	7b. ADDRESS (City, State, and ZIP Code)
a. NAME OF FUNDING/SPONSORING ORGANIZATION; 8b OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
c. ADDRESS (City, State, and ZIP Code)	10. SOURCE OF FUNDING NUMBERS: PROGRAM ELEMENT NO. / PROJECT NO. / TASK NO. / WORK UNIT ACCESSION NO.

1. TITLE (Include Security Classification)

The Environmental Compliance Challenge for the Army and the Army National Guard

2. PERSONAL AUTHOR(S)

de Kramer, Steven R., LTC

3a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
Study Project	FROM _____ TO _____	1992 MAY 21	61

6. SUPPLEMENTARY NOTATION

7. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	

9. ABSTRACT (Continue on reverse if necessary and identify by block number)

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20. DISTRIBUTION/AVAILABILITY OF ABSTRACT	21. ABSTRACT SECURITY CLASSIFICATION	
☐ UNCLASSIFIED/UNLIMITED ☒ SAME AS RPT. ☐ DTIC USERS		
22a. NAME OF RESPONSIBLE INDIVIDUAL: HENRY L. VAN BREDERODE	22b. TELEPHONE (Include Area Code): 717/245-3044	22c. OFFICE SYMBOL: AWCA

UNCLASSIFED

USAWC MILITARY STUDIES PROGRAM PAPER

The Environmental Compliance Challenge for the Army and the Army National Guard

AN INDIVIDUAL STUDY PROJECT

by

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UNCLASSIFIED

ABSTRACT

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TITLE: The Environmental Compliance Challenge for the Army and the Army National Guard

FORMAT: Individual Study Project

DATE: 21 May 1992 PAGES: 59 CLASSIFICATION: Unclassified

The Army is committed to achieving environmental compliance. Discussion of the Army environmental program and the National Environmental Policy Act (NEPA) describe the efforts required and being made by the Army and the Army National Guard (ARNG) to attain environmental compliance. The Army environmental program includes the functional areas of compliance, restoration, prevention, and stewardship. The Army Compliance Achievement Program (ECAP) integrates training, planning and programming, resourcing, assessing, and deficiency correction. The key effort under ECAP is the Environmental Compliance Assessment System (ECAS), which has shown great promise in the ARNG as ECASARNG. The Installation Restoration Program (IRP) identifies and mitigates hazardous waste contamination, while the Hazardous Waste Minimization Program (HAZMIN) seeks to reduce and eliminate the contamination threat. Environmental stewardship considers land management practices under Integrated Training Area Management (ITAM). NEPA compliance requires that the environmental consequences of proposed actions be considered during the decisionmaking process.

INTRODUCTION

The environment has become a priority issue again throughout the United States. From the Northern spotted owl in the forests of Oregon and Washington to the Red Cockaded woodpecker in North Carolina and Mississippi to ozone loss in the Northern hemisphere to unexploded ordnance at Aberdeen Proving Grounds, environmental problems are gaining the attention of the American people and the local, state, and federal environmental regulators.

Federal agencies are expected to comply with environmental laws, whether they be federal, state, or local. The Departments of Defense and Energy have been the biggest federal polluters and stand to gain and lose the most depending on the success of their restoration, abatement, and prevention programs. Despite its environmental problems, the Army wants to be recognized as the armed service leading the way toward ultimate environmental compliance. If the Army is indeed in the lead, then the Army National Guard (ARNG) is at the point.

There are scores of environmental laws and regulations with which the Army must comply. In addition to federal laws, each installation may have special environmental concerns because of the specific state and local laws which apply. For the ARNG, an important consideration is that each state or territory ARNG is by regulation considered an installation with the Adjutant General (TAG) as the installation commander.[1] The ARNG armories, maintenance shops, and training areas are all considered separate facilities within the installation. A National Guard Bureau

(NGB) environmental policy places the responsibility for environmental compliance and the consequences for compliance deficiencies on the state ARNG[2].

This paper is a study of the challenge of environmental compliance for the Army, and specifically the ARNG. The purpose of this study is to provide an awareness of the accomplishments, commitments, and challenges to achieving environmental compliance. To get to that end, the environmental records and policies of the Department of Defense (DOD) and the Department of the Army will be reviewed. Although compliance with all environmental laws and regulations is required, this study will focus on only one environmental law, the National Environmental Policy Act (NEPA) of 1969, and the supporting Army environmental program.

The Environmental Commitment

Late in the last decade, the environment became a significant issue for the Department of Defense. Recognized as one the largest industries in the world, DOD was also recognized as being one of our nation's most prolific polluters.[3] Past practices that were justified as necessary for national security were being questioned. Industrial and disposal practices that had been commonly accepted in the past were recognized as safety and health risks.[4]

An highly publicized incident for the Army took place at Aberdeen Proving Grounds. Maryland environmental officials found

89 hazardous waste violations there over a fifteen month period. Their February 1988 report evolved into a test court case for the applicability of environmental laws at military facilities.[5] In February 1989, three civilian managers were convicted and later sentenced to three years probation under the Resources Conservation and Recovery Act (RCRA) for illegally storing, treating, and disposing of hazardous waste.[6] The chief prosecutor allowed that at Aberdeen, there was a sense that environmental laws did not apply to the Army.[7]

Environmental laws do apply to the Army, to DOD, and all federal agencies, just as they do to the private sector. The public and the Congress are aware, interested, and active in addressing environmental issues. The armed services must jump on the environmental bandwagon with action, not just words.

Words have come from President Bush who said he wanted to be remembered as the "Environmental President" and that environmental protection would have high priority in his administration.[8] Secretary of Defense Richard Cheney issued a policy memorandum on October 10, 1989 in which he said, "As the largest federal agency, the Department of Defense has a great responsibility to meet this (environmental) challenge....I want every command to be an environmental standard by which federal agencies are judged."[9] Secretary Cheney also issued guidance to DOD leaders in a memorandum entitled "Environmental Management Policy." He stated, "This administration wants the United States to be the world leader in addressing environmental problems, and

I want the Department of Defense to be the federal leader in agency environmental compliance and protection."[10] Secretary Cheney continued to discuss the "new environmental ethic" in a September 1990 speech. He said, "True leadership is more than mere compliance, it means action and commitment." He continued, "...cleanup and compliance are being treated as fundamental costs of doing business, costs that will be routinely factored into plans, programs, and budgets."[11] The administration took a stand on the environment, but record of its action will not be judged here.

The Army can take credit for some early environmental initiatives. Its Installation Restoration Program (IRP) preceded the national hazardous waste cleanup (Superfund) program by nearly five years. An Army environmental strategy was conceived in 1988, and an environmental audit program was started. Even an Army program to reduce hazardous waste was in place before the Secretary of Defense issued his environmental guidance.[12]

The environmental management policy for the Army was issued jointly by Secretary of the Army M.P.W. Stone and then Chief of Staff Carl E. Vuono.[13] The policy establishes a commitment to set the government standard as "the leader in compliance with environmental law, prevention of environmental damage, and protection and stewardship of natural resources."[14] To do so, the policy mandates the integration of environmental considerations in all its activities and recognizes environmental stewardship as a necessary cost of doing business.[15]

The Chief of the National Guard Bureau, Lieutenant General John B. Conaway, in a speech to TAGs in 1990 made the National Guard position on the environment perfectly clear. "There have been occasions where the standard operating procedure was to ignore environmental compliance where it was inconvenient, potentially embarassing or just too costly. Well those days are over. I am here not only to reinforce (the President's) commitment, but to challenge the Guard leadership to go one step further. My goal is to make the National Guard the agency by which all other agencies are judged."[16] As a result of his direction, the Army directorate within NGB has been building a staff to provide federal environmental compliance management for ARNG managed federal facilities and state facilities receiving federal funds. The ARNG by many accounts is striving for and achieving the leadership role for Army environmental compliance.

To focus and develop Army environmental management policy, the Army environmental program was established. The program, funded in excess of $1.2 billion in FY91, addresses four functional areas: compliance, restoration, prevention, and stewardship. Oversight of the program falls on the Chief of Engineers and management is the responsibility of the Office of the Assistant Chief of Engineers, the Army Environmental Office, and the CE Directorate of Military Programs.[17]

Environmental Compliance

Environmental compliance has been described as a challenging

and sometimes elusive goal for the Army, due in part to the fifty plus federal laws currently in effect plus those being considered.[18] Add to those the state and local environmental regulations and statutes, many of which are more stringent than the federal, and the Army installations experience a compliance nightmare.

To help achieve its compliance responsibilities, the Army Environmental Compliance Achievement Program (ECAP) was established. Before ECAP, compliance for the Army as well as other federal agencies was determined by inspections done either by the U.S. Environmental Protection Agency (EPA) or a state environmental regulatory agency. Because some environmental regulations are self-regulating; that is, the installation is to monitor its environmental activity and notify the regulatory agency when it suspects it is not in compliance, ECAP was designed to assist each installation to achieve and maintain compliance.[19] Five fundamental considerations are integrated under the umbrella of ECAP: training, planning and programming, resourcing, assessing, and deficiency correction. The program charges the Army with several necessary but ambitious objectives:

- require and provide environmental training
- provide technical assistance to installations for program implementation
- reduce hazardous waste production
- monitor environmental compliance issues
- document compliance status and improvement efforts

- program adequate funding and resources
- monitor program expenditures
- recognize outstanding individual and installation environmental efforts with an awards program.[20]

An important observation to make about ECAP is that it includes provisions required by NEPA of all federal agencies. NEPA will be discussed in detail later in this study.

The key element of ECAP and one in which the ARNG is clearly leading the way is the Environmental Compliance Assessment System (ECAS, ECASARNG for ARNG). Required by Army Regulation 200-1, Environmental Protection and Enhancement, environmental compliance assessments are conducted to determine how well Army installations are complying with applicable federal, state, local, and host nation environmental regulations. AR 200-1 requires external assessments for installations to be accomplished every four years by an independent agency. At the mid-point of the assessment cycle, internal or self-assessments are to be conducted.[21]

The ECAS program officially began in October 1991 with a total annual operating budget of $21 million for the Active Army and both reserve components. The assessment procedure determines installation compliance with environmental laws and regulations by specifically noting deficiencies during a thorough on-site evaluation. Additionally, ECAS includes developing corrective action strategies to achieve compliance, as well as estimating the cost to do so.[22] Over time, provided adequate funding is

available and continues, ECAS will provide the means for all Army installations to achieve and maintain environmental compliance.

The early indications that ECAS will be a highly successful program can be attributed to the assessments completed by the ARNG in several states through the coordinated efforts of the National Guard Bureau (Army Directorate) Environmental Resources Management Office (NGB-ARE), the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA), the U.S. Army Construction Engineering Research Laboratory (USACERL), and the various state ARNG environmental offices. The NGB environmental office worked with USACERL to develop the assessment protocols unique to the ARNG. Private environmental consulting firms were contracted to do the actual assessment in each state.[23]

The ECASARNG was successfully tested in Illinois, Minnesota and the Virgin Islands in FY91 with an assessment of Ohio formally starting ECASARNG in October 1991. Fourteen states and Guam will be assessed in FY92. The remaining states and territories have assessments scheduled so that the first cycle of external assessments will be completed by the end of FY95.[24]

Each state and territory ARNG is considered an installation. Within each installation, there are a varying number of facilities that must be assessed. These facilities include armories, maintenance shops, and training areas of differing size, level, and mission. Among the 54 ARNG installations, over 3,200 facilities must be assessed. To fund the assessments, the ECASARNG share of the annual Army ECAS budget is $6.1 Million.

As a comparison, the annual Active Army share of the ECAS budget is $9.3 million to assess a four year total of 200 installations.[25]

The ECASARNG program has several objectives that are expanded from the basic ECAS objectives presented above.[26] First is to establish an ARNG-wide environmental compliance assessment standard to ensure the ARNG complies with all applicable environmental laws and regulations. To accomplish this, NGB-ARE representatives worked with USACERL to develop an ECASARNG manual. The manual incorporates seventeen ECAS protocols as required by AR 200-1 (these protocols are listed in Appendix A). The protocols are based on federal environmental regulations which are to be supplemented by state and local regulations if more stringent and applicable to the ARNG installation. The manual is organized by protocol in checklist format with easy to understand and referenced questions. The manual is the principal tool used to conduct the evaluation phase of ECASARNG.

The second objective of ECASARNG is to assure commanders and environmental program managers that environmental problems and concerns are being effectively addressed by their environmental programs. The assessments will identify shortcomings in environmental programs and identify potential and actual situations of noncompliance. The assessments will also recognize good management practices that are not regulated but may contribute to compliance.

Accomplishing the second ECASARNG objective contributes to

the third; anticipating and preventing future environmental problems by incorporating that information received into revised environmental programs and improved environmental practices. This is important to an Adjutant General and his subordinate commanders to avoid activities and situations that could degrade the environment and jeopardize the health of ARNG personnel and the general populace. Avoidance will also eliminate ARNG financial liability and individual criminal or civil liability which may result from unit, facility, and installation noncompliance with environmental laws and regulations. Avoidance will reinforce and maintain public confidence in the ARNG and the U.S. military establishment. Finally, avoidance may maintain mission effectiveness by assuring safe, environmentally sound, and rigorous training.

Completing the third objective may be dependent in part on the fourth, which addresses money. The assessment process provides data used to identify and validate environmental requirements. Requirements are listed in order of priority and programmed for funding. Highest priority requirements are urgent and must be accomplished to correct situations out of environmental compliance. Situations of expected noncompliance, such as expiration of a consent agreement or pending notificaton of violation from a regulatory agency, are the next priority. Of lowest priority are those which may be beneficial, and perhaps even critical, but not necessary to maintain compliance; such as personnel, environmental analysis, and environmental training.

With the objectives of ECASARNG defined and discussed, it is important to look at the process. The program management process of ECASARNG comprises three distinct phases: preevaluation activities, site evaluation activities, and postevaluation activities.[27] The ECASARNG manual deals directly with the preevaluation and site evaluation phases. The post evaluation phase may be a lengthy and intensive process involving the external or internal evaluators, TAG (installation commander), NGB, and the regulators.

Preevaluation includes five activities that must be accomplished before the evaluation begins. One is the previsit questionnaire which is used to collect information specific to each facility within the installation. The questionnaire allows each facility manager to identify environmental concerns, as well as describe the nature of the facility and its operation. For the evaluators, the questionnaire allows previsit preparation to be more detailed and specific for each facility.

Other preevaluation activity includes determining the scope of the evaluation with priorities based on input from the installation. The organization doing the evaluation also selects evaluation team responsibilities during the scoping process. With those accomplished, the evaluators thoroughly review the relevant federal, state, and local environmental regulations; develop a detailed evaluation schedule; and refamiliarize with the protocol checklists in the assessment manual.

Site evaluation activity is the in depth assessment of the

compliance status by evaluators using the protocol checklists and conducting interviews, record searches, and site surveys. The data collected by the evaluators must be adequate to provide a sound basis for evaluation findings and recommendations. The ECASARNG manual provides a locally reproduceable Individual Finding Sheet to assist the evaluators in compiling the information. The sheet may be used for recording both positive and negative findings, as well as recording suggested solutions to deficiencies and noting any immediate or planned corrective actions. Completed sheets are used for both evaluation outbriefings and post evaluation activities.

The negative findings or deficiencies are rated by degree of severity. Significant deficiencies require immediate attention and are those that pose a real or probable direct and immediate threat to human health, safety, the environment, or the mission of the facility. Major deficiencies may pose a threat to human health, safety, or the environment and require action, but not immediate action. Minor deficiencies include the vast majority of deficiencies and are often administrative. A minor deficiency may result in a notice of violation and may sometimes include situations of noncompliance. The final deficiency category includes management practice items which have no regulatory requirement, but which may influence compliance attainment.

When the site assessments have been completed for all facilities, the post evaluation phase begins. The evaluating organization prepares a draft findings report for the

installation which will include recommendations for corrective actions. The draft report is briefed to TAG and his staff from which a corrective action plan is developed. Additionally, a request for funds from NGB is initiated for priority environmental projects and other compliance activities.

The corrective action plan is provided to the evaluators for their preparation of a draft compliance assessment report. This draft report is then reviewed by TAG and NGB-ARE, and then returned to the evaluators for revision and documentation. Approval and signature by the Director of the ARNG after final review by NGB-ARE results in a final compliance assessment report.

The ECASARNG program will in four years have evaluated the environmental compliance situation in all 54 ARNG states and territories. By the completion of the initial external assessments, roughly one-half of the installations will have received the mid-cycle internal review. The one fear or concern expressed about the program, that the assessments will uncover problems, is actually a major positive result. The environmental deficiencies discovered will be remediated or mitigated through corrective action plans and dedicated environmental dollars. The public and the regulatory agencies will recognize the efforts being made to achieve compliance and correct and prevent environmental problems, gaining good will from the public and a positive win-win relationship with the regulators.[28] The TAGs, their commanders, and staffs will gain an appreciation of their

environmental situation and develop or renew an environmental ethic as part of the way they do their ARNG business. The leaders, soldiers and civilians will consider the environmental consequences of their training and work activities. The ECASARNG goal of achieving environmental compliance and protecting the environment will be achieved provided one missing element is added - environmental training.

Looking back to the fundamental considerations of the Army Environmental Compliance Achievement Program, the one that ECAS (ECASARNG) does not address among its objectives is environmental training (although some ECASARNG protocol checklists do question the existence of training programs). A recent DOD Inspector General report on ECAP recommended that EPA guidelines become the basis for ECAP in the future; one of the guidelines calls for knowledgeable and adequately trained personnel.[29] Reference to a 1989 DA IG Hazardous Waste Inspection reported that environmental training programs at 59 CONUS and OCONUS posts and eight ARNG and Army Reserve installations did not comply with regulatory requirements, training resources were not being used prudently, and 'train the trainer' and exportable training products were needed desperately.[30]

Environmental training is a real issue, one that has been mentioned at Army levels ranging from ARNG facilities to NGB-ARE staff to the Office of Assistant Secretary of the Army for Installations, Logistics, and the Environment to the Secretary of the Army himself. Lots of finger pointing can be done on this

issue, but that does nothing to help. This is not meant to imply that environmental training does not exist, many programs are in place from unit to installation and major command levels; however, there is no centrally managed program. Moreover, there is concern about inadequate funding and manpower for environmental training development and instruction and what the nature of this training should be.[31]

The Army's principal environmental program management agency, USATHAMA, has as one of its responsibilities to develop an environmental training master plan, working with U.S. Army Training and Doctrine Command (TRADOC) and the Office of Deputy Chief of Staff for Operations (ODCSOPS).[32] What has been accomplished is uncertain; however, there is certainly evidence and suggestion that something is being done. The Chief of Engineers recently stated that the Army is working on incorporating environmentally oriented training in the schooling of officer and enlisted soldiers and the career development of civil servants.[33] USATHAMA is investigating means to incorporate environmental training into the officer advanced courses and both intermediate and senior level service colleges.[34] In the Fall of 1991, USATHAMA distributed to major commands, installations, and activities the Army's Environmental Training Directory (ETD) which identified short term environmental training courses available within DOD, other government agencies, universities, and the private sector.[35]

In spite of the expressions of concern and intent, the

catalogued course availability, and the master plan activity; environmental training, unfortunately, has probably received more lip service and misdirected effort than constructive action. Environmental training at all levels is definitely a necessity. For example, ECAS preliminary findings show the need to instruct the wheeled vehicle mechanic and the motor sergeant and the shop chief how to handle and dispose of hazardous waste.[36] Another example, commanders from unit level and higher have to understand the NEPA requirements they need to consider when planning and executing training activities.

Environmental training, especially environmental awareness, must be mandatory for every enlisted person, officer and civilian in the Army. This training must start with enlisted initial entry training and the officer basic courses. Every level of advanced military education to the Sergeants Major Academy and Senior Service College should include environmental training. The civilians who are the environmental scientists and technicians must be encouraged and required to attend professional development and refresher training.

The Corps of Engineers published an excellent manual in October 1990 entitled Commander's Guide to Environmental Management. The manual discusses environmental compliance, restoration, documentation, liabilities, public relations, and other topics. It is a valuable resource for commanders and staff at installations, major commands, and other activities. But what about the unit and organization commanders and soldiers? A

manual that describes the environmental responsibilites and obligations of the commander, and the consequences of ignoring or violating them, is necessary. Tactical and technical competence are important yardsticks for determining job proficiency; environmental awareness and actions must also be included.

Environmental Restoration

Hazardous waste is among the most serious environmental problems in the United States, and is definitely the military's most obvious and costly. Of the more than 250 million tons of hazardous waste that EPA estimates is produced in this country each year,[37] DOD produces over 400,000 tons, including contaminated sludge, solvents, acids, and heavy metals.[38] The Army's share of the DOD total is roughly 25 percent, 100,000 tons, primarily from industrial activities within the Army Materiel Command.[39] The totals cited do not include the massive amounts of hazardous wastes buried in disposal sites or the tons of unexploded ordnance littering military installations and facilities. In fact, many of the Army's worst sites are at ammunition plants and storage facilities where the chemical disposal practices which were once common and acceptable have resulted in haunting contamination.[40] These past and present hazardous wastes contribute to another functional area addressed by the Army environmental program, environmental restoration.

Almost anyone with a learned opinion can estimate what cleanup will cost. By the end of FY 91, about 17,500 sites had

been surveyed at 1,855 military installations.[41] Additionally, 7,200 formerly DOD owned or operated sites had been surveyed for hazardous wastes.[42] All the sites surveyed will require some amount of cleanup or restoration work. The Army's share of these contaminated sites numbers more than 10,000.[43] Total restoration costs for DOD have been estimated at $25 billion,[44] $200 billion,[45] and $400 billion.[46] Whatever the cost, one can expect the number of sites requiring cleanup to increase and restoration completion to take decades.

In 1974, the Army initiated the Installation Restoration Program (IRP) to identify and mitigate hazardous waste contamination at all Army installations.[47] IRP was established throughout DOD in 1975.[48] Congress realized the seriousness of hazardous waste and passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980. CERCLA holds responsible parties, if they can be identified, liable for cleanup of hazardous waste sites. Because responsible parties may not be found or hazardous material emergencies may occur, CERCLA established the hazardous Waste Trust Fund (Superfund) to enable site cleanup. CERCLA also supports technological and scientific efforts to deal with hazardous waste management, treatment, and disposal.[49]

Under CERCLA, the EPA enforced hazardous waste cleanup caused by private industry, agriculture, or local governments. Not surprisingly, federal government departments, agencies, and instrumentalities were exempt from CERCLA compliance. That

changed with passage of the Superfund Amendments and Reauthorization Act (SARA) of 1986, which requires federal compliance to CERCLA to the same extent as the others.[50] SARA provided the funds to formally start the Defense Environmental Remediation Program (DERP) which had been established by DOD in 1984.[51] DERP now includes the IRP and military research and development efforts to reduce hazardous waste. Cleanup of all military toxic waste sites is under the direction of DERP with U.S. Army Corps of Engineer responsibility for accomplishing remediation surveys.[52]

Another result of CERCLA was the National Priorities List (NPL). The NPL is used by the EPA to designate by cleanup priority Superfund sites with serious hazardous waste problems.[53] Over 2,000 contaminated sites are listed on the NPL. With the Departments of Defense and Energy routinely making the news with their cleanup efforts at such NPL sites as the Rocky Mountain Arsenal (Army) or the Rocky Flats Atomic Energy Plant, it should be noted that "only" (emphasis added) 112 sites are theirs.[54] In July 1991, the Army had 36 NPL sites designated at 32 installations.[55]

Although they are not, the Army's number of NPL sites may seem trivial when compared to its over 10,000 other toxic sites, which is greater than the sum of the other services.[56] To define, "a toxic 'site' is considered anything with the potential to harm the environment."[57] Examples of toxic sites may include leaking and nonleaking underground storage tanks, landfills, fuel

spills, and fire training pits. Under IRP, the general Army policy is site cleanup on a "worst first" basis.[58]

The funds to support environmental restoration projects comes from the Defense Environmental Restoration Account (DERA). In FY 90, DERA was funded at $601 million, increased to $1.062 billion in FY 91[59] (of which $700 million was spent).[60] The Army IRP share of the FY 91 DERA was $287 million. DERA funds for FY 92 were increased to nearly $1.184 billion;[61] the Army requested $322 million.[62]

The ARNG IRP effort received $1.2 million in FY 91 and is funded at nearly $15 million for FY 92 from the DERA.[63] While these amounts seem small, only two ARNG facilities are "Superfund" sites under DERP. The most serious, surmised because it is receiving the major portion of the DERA money, is the Massachusetts Military Reservation (MMR), home to Camp Edwards and Otis Air National Guard Base.[64] Additionally, at least 221 other ARNG sites have been identified for cleanup under the IRP, a mere two percent of the Army's total.[65]

One may wonder how the ARNG has avoided serious hazardous waste problems over its proud history. It probably has not. The sites evaluated for hazardous waste contamination by DOD were primarily active military sites. The ARNG and its sister reserve components may soon be rudely awakened. The ECASARNG so highly lauded earlier in this paper will be the key instrument that will locate hazardous waste problems in the ARNG. Similar ECAS programs will likewise be important to the others. Thomas E.

Baca, Deputy Assistant Secretary of Defense for Environment, is quoted as saying "I think now we are at the point of identifying our universe of problems. That list (of new sites) will cease to grow."[66] Though he may be correct for the active military, sadly, ECAS will probably prove him wrong.

Pollution Prevention

For more than two decades, pollution with its myriad of sources has been an emotional and political issue. It was reasonable and expected for Congress and state legislatures to pass the laws and government agencies to promulgate the regulations for its control. That method of dealing with the problem was, however, in many respects, a treat the symptoms approach. While this effort has caused a significant reduction in the contaminants entering the environment, there was little accomplished toward actually eliminating them. This is quite apparent with waste materials, especially those which are hazardous. Disposal of hazardous wastes in many cases amounts to longterm storage in controlled and impermeable landfills.

The Department of Defense, the Army, and her sister services have recognized that by controlling the production of their principal pollutant, hazardous waste, the associated handling, storage, containment, and disposal problems will be reduced accordingly. This is the underlying thesis for the third functional area of the Army environmental program, prevention.

The key initiative for prevention is the Hazardous Waste

Minimization Program (HAZMIN), established by the Army in 1984 and managed by USATHAMA. A goal for this program, as it is DOD-wide, is to reduce the generation of hazardous waste 50 percent by the end of 1992. Methods being used to accomplish this goal especially at the user level include recycling, replacing hazardous materials with non-hazardous, and improving material tracking and handling. Other methods include modifying specifications for system acquisition, establishing more stringent procurement policies, and improving knowledge of and using new waste reduction technologies.[67]

The HAZMIN challenge is "to reduce or eliminate generation of hazardous wastes and simultaneously reduce operating costs while maintaining or improving product quality."[68] The Army research and development program is working to meet this challenge. Several new technologies have been developed that may significantly reduce, and in some cases eliminate, hazardous wastes generated from paint stripping, degreasing, cleaning, electroplating, and painting. Other processes show promise in the reuse, recycle, and nonhazardous destruction of propellants and explosives.[69]

For the individual unit, the maintenance facility, and the installation, a key player in the disposal of hazardous waste is the Defense Reutilization Marketing Office (DRMO). Each of the 169 DRMOs throughout the United States support the DOD customer by arranging for pickup, transportation, temporary storage, treatment, and ultimate disposal of hazardous waste. The DRMOs

screen the waste for materials that can be reused, transfered, donated, or recycled. Their effort is critical in minimizing waste and reducing disposal costs, and may even provide payback to the waste producers through the Resource Recycling and Recovery Program.[70] The DRMOs also have their own hazardous waste manifesting and tracking system which can follow all hazardous waste generated from cradle to grave.[71]

It is important to note that the DRMO system tracks hazardous waste generated and not potentially hazardous materials that are not wastes. A maintenance facility obtaining a 55 gallon drum of solvent, motor oil, or ethylene glycol through supply channels may have an immediate storage and spill containment concern. There is no hazardous waste problem, notwithstanding the immediate potential, however, until the drum is opened. Accountability for the materials described is the user's responsibility.

Hazardous waste is a major concern of the ARNG especially with respect to storage, handling, and recordkeeping. Spill prevention and containment are problems associated with storage and handling of potential and existing hazardous wastes. Underground storage tanks with contents or even their existence unknown can be pollution nightmares. Attaining proper administrative accountability of hazardous waste storage and transfer can be a significant compliance headache.

Among the items that an ECASARNG evaluate include the storage and handling of materials that have the potential to

generate hazardous wastes; and the location, condition, and monitoring of underground storage tanks. The ECASARNG evaluation also insures that materials that have become hazardous wastes are properly stored and documented for ultimate transfer to DRMO.[72]

The hazardous wastes likely generated in the smallest quantities yet most frequently are those from spills.[73] Although spills from storage tanks or vehicle accidents may be large and environmentally severe, most spills are much smaller and the products of refueling, leaking engine or transmission oil, and the like. Camp Grayling, a National Guard training site in Michigan, has its own training circular that provides the environmental ground rules for the units that train there each year.[74] Spills must be cleaned up and rendered harmless, even if that means units taking contaminated soil home with them when training is completed. The commanders of units using Camp Grayling understand that continued training there requires an ingrained environmental consciousness among their troops and the practice of treating the site with "tender loving care".[75]

Environmental Stewardship

All aspects of the Army environmental program discussed so far can be broadly included in environmental stewardship. To protect, clean, and nurture our environment includes the compliance with environmental laws and regulations, cleanup of past pollution, reduction of contaminant generation, and sustaining the care of remaining environmental resources.

When considering stewardship as a functional area of the Army environmental program, the term more specifically refers to proper land management and the preservation of natural, cultural, and archeological resources.[76] Most major training areas, whether active, Guard, or Reserve, have experienced increased frequency of heavy vehicle traffic, mechanized maneuvers, and combined arms exercises. This places a great burden on the landscape to withstand the activity and recover from the associated damages and abuse. Besides the environmental considerations, resource conservation and preservation of realistic training areas become crucial land management issues. As a result, USACERL developed a program that shows great promise toward achieving and sustaining good stewardship -- Integrated Training Area Management (ITAM).[77]

The ITAM program contains six elements that may be integrated entirely or in part to provide Army land managers a comprehensive approach to land management. The six include:

- Integration of Training Mission Requirements. This element identifies the training requirements for the installation or facility; then the landscape is examined to determine the areas that can best support the various training activities.
- Land Condition-Trend Analysis (LCTA). LCTA is a standardized land inventory approach that provides information trainers use to optimize their training mission while minimizing environmental impact.

- Rehabilitation and Maintenance. This element has many goals; the foremost of which is to prevent erosion by planting and maintaining soil stabilizing vegetation, using native plants when possible. Other goals include conserving forests, providing good wildlife habitat, and improving quality of range and agricultural lands.
- Structural Rehabilitation and Runoff Control Technologies. This element goes beyond rehabilitation and maintenance for large-scale erosion repair and avoidance. Permanent construction may be required to modify the landscape so it is able to withstand frequent and repetitive training activities.
- Computerized Decision Support Systems. These include two automated systems to help manage ITAM generated data. The Geographic Resources Analysis Support System (GRASS) database includes maps, satellite imagery, and soil and land surveys. The LCTA Relational Database Management System stores, manipulates, analyzes, and synthesizes data on soils, vegetation, and wildlife. These will support decision making at all Army levels.
- Comprehensive, Multimedia Environmental Awareness Program. This program goal is to point out the need for soldiers to protect the Army's limited environmental resources from wanton and ill advised damage and offer methods to minimize future damage.[78]

The ITAM program has been implemented at least in part at

Army installations throughout the United States and in Germany. The first ARNG training site to adopt ITAM was Orchard Training Area (OTA) in Idaho. At OTA, the public reacted negatively to approved multipurpose range construction because data was unavailable to document land management claims. ITAM provided the means to collect the required information, prepare a complete land management program, and gain public support. OTA success with ITAM led to programs being started at Camp Ripley, MN and Camp Grayling, MI.[79] Camp Shelby, MS found expected utility in ITAM land management data by incorporating it in a recent draft environmental impact statement (EIS).[80] With the positive results the ARNG has experienced, suffice it to say that NGB is high on ITAM.

The long-term benefits of ITAM implementation are numerous. Eliminating or minimizing training signature leads to more realistic training and enhances readiness posture. Training and land management costs are reduced as maneuver damage declines and land use improves. Good land management practices tend to leave favorable reputations which may facilitate future land acquisitions or leases.[81] Good environmental stewardship begets goodwill from the previously skeptical public.

National Environmental Policy Act

Of all the environmental laws, the one that seems to be the most innocuous is NEPA. Unlike other substantive laws for which violation or noncompliance may be considered crimes; NEPA is

procedural, declaring a national environmental policy and promoting the consideration of environmental concerns by federal agencies. As a result of the Act, signed into law on New Years Day in 1970 by President Nixon, and numerous judicial interpretations of the statute's intent, the federal decisionmaking process has become permeated with environmental consciousness;[82] however variable among the various agencies.

The importance of NEPA to the Army and DOD cannot be overstated. The act requires commanders to consider the potential environmental consequences of proposed actions and mission related activities as part of their decision making process. Failure to do so may lead to injunctions that can disrupt and delay military construction, operations, or training.[83] Any interested citizen who is willing to pay the filing fee and obtains concurrence from a sympathetic judge can stop a military activity dead in its tracks.[84] Although NEPA is a procedural law, it may be viewed as an umbrella statute for the coordination of the other substantive laws. Failure to include the NEPA process in program planning may cause disregard for the substantive environmental laws that specifically forbid certain activities or material use, or limit pollutant discharge into the air, water, or land; and lead to criminal litigation.

To adequately understand the implicit expectations of NEPA, its purpose must be stated. The Act declared a national policy to "encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or

eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality."[85]

The Federal Government is held responsible under Title I of NEPA to improve and coordinate plans, functions, programs, and resources so that:

- the responsibility for protecting the environment for future generations rests on the current generation
- future Americans may enjoy safe, healthful, productive, and esthetically and culturally pleasing surroundings
- the greatest beneficial use of the environment can be achieved without degradation, risk to safety or health, or other undesirable or unintended consquences
- important historical, cultural, and natural aspects of our national heritage are preserved; and an environment supporting diversity and freedom of choice is maintained
- a balance between population and resource use is achieved which permits high standards of living and broad sharing of the amenities of life
- the quality of renewable resources is enhanced and depletable resources are maximally recycled.[86]

Though NEPA is aimed at federal agencies, it widely impacts the rest of society. National parks, forests, and grasslands are covered by the act; as are marine fisheries, wetlands, and other environmentally sensitive areas.[87] It may be easily apparent why

many Army installations and facilities are and must be inextricably involved in the NEPA process.

Regulations to implement the procedural provisions of NEPA were promulgated by the Council on Environmental Quality (CEQ) which was established by Title II of the act. Some of the key provisions covered by the regulations include:

- ensuring environmental information is available to the public before decisions are made or action is taken
- ensuring information disseminated to the public is relevant and accurate
- ensuring NEPA requirements are incorporated early in the decision making process and concurrently with other planning and review procedures, and not after all planning has been accomplished
- ensuring NEPA is used to identify alternative courses of action that will minimize the impact an activity will have on the environment
- ensuring constructive actions are taken to restore and enhance environmental quality.[88]

The NEPA provisions and CEQ regulations are incorporated into Army Regulation (AR) 200-2, Environmental Effects of Army Actions. The regulation "sets forth policy, responsibilities, and procedures for integrating environmental considerations into Army planning and decisionmaking."[89] AR 200-2 provides installation commanders the guidance to practice the "Golden Rule of the Environment - do for the environment that which the

environment is unable to do for itself."[90] The regulation describes an assessment process that considers the actual or potential environmental effects of a proposed action before a decision is made; it also describes the required records and required and optional documents.

The NEPA process for the Army contains five environmental review categories:

- Exemption by law. The law must apply to DOD and the Army or the Army alone and must prohibit, exempt, or make impossible full compliance with NEPA.
- Emergencies. In an emergency, the Army may be required to take immediate actions, to promote national defense or security and for protection of life and property, that have environmental impacts.
- Categorical exclusions (CX). These are actions that the Army has determined do not individually or cumulatively have significant impact on the human environment, and that normally do not require an environmental assessment nor an environmental impact statement.
- Environmental assessment (EA). The EA is prepared to determine how extensive and significant the environmental impacts of a proposed action are. The EA is not required for an action exempted by law or determined to be a CX.
- Environmemntal impact statement (EIS). The EIS is a public document having the primary purpose of ensuring that NEPA policies and goals are incorporated early into

the programs and actions of federal agencies. An EIS is required to fully and fairly discuss the significant environmental impacts of an action.[91]

The Army environmental review process requires systematic documentation and recordkeeping. Even if a proposed action is exempt by law from the NEPA process or identified as a CX, a record of environmental consideration (REC) is required. The REC decribes the proposed action and its timing, identifies the proponent, and justifies why additional environmental analysis and documentation is not required. An REC may also be used if a like proposed action has been adequately assessed in existing documentation and deemed environmentally insignificant.[92]

Other proposed actions that may have environmental consequences require an environmental assessment. The EA is specified by AR 200-2 when the proposed action has potential for cumulative impact on environmental quality when combined with other actions or is to be of long duration. An EA is also required if pollution abatement standards may be violated or hazardous materials may be released into the environment. Possibly of most significance to proposed major training area initiatives, an EA is required when there is potential for harm to culturally or ecologically sensitive areas.

The EA is a significant process because its results will determine whether or not further environmental study is required. Preparation of the EA includes a statement of purpose for the proposed action and a description of the action. All the

alternatives considered, including a no action alternative, must be presented. The baseline conditions of the environment being affected are described along with the expected environmental consequences of the proposed action and all alternatives. The persons and agencies consulted as part of the EA are to be listed. Finally, the EA concludes with a finding on the significance of the environmental impact of the proposed action.

If the EA concludes that the environmental impacts are not significant, a finding of no significant impact (FNSI, also FONSI) is published for review and consideration by the decisionmaker. The FNSI, as a separate document with the EA either summarized or attached, briefly states the reasons why the action will not have significant impact on the human environment. Approval of the FNSI is indicated by the decisionmaker's signature.

Inherent in the EA process is the opportunity for the public to be involved in the environmental analysis and to review the FNSI. Distribution of the FNSI for review must be accomplished at least 30 days prior to beginning the proposed action. If the situation warrants, the public should also be invited to participate in the environmental analysis. Public involvement may include an open session where the proposed action is presented for comment which may lead to concerns and consequences not previously considered by the Army. This public involvement may also engender public support for the action and bring to light unanticipated confrontational issues.

An EA concluding that additional study of a proposed action is necessary requires preparation of a notice of intent (NOI) to prepare an environmental impact statement. In fact, an NOI may be initiated at any time during an EA when determination is made that environmental impacts will be significant. Before an EIS is prepared, the NOI must be forwarded through Headquarters, Department of the Army (HQDA), and published in the Federal Register. The NOI must also be published in newspapers that have circulation in the areas likely to be affected by the proposed action and with adequate lead time to allow for comment.

The EIS is the NEPA document most familiar by name recognition to the layman and by far the most dreaded because preparation is confrontational, time consuming and costly. The dread of an EIS was probably most readily attributed to ignorance of the NEPA process, but it nevertheless contributed to incomplete and poorly prepared EIS documents and overuse of the categorical exclusion (CX). With the renewed environmental consciousness of the Army, especially to integrate the NEPA process early in project planning, the EIS and other environmental documents are becoming accepted as the way the Army does its business. To get a full appreciation for the conditions under which a proposed action may have significant enironmental impact, refer to the listing in Appendix B. For a list of types of Army actions that normally require an EIS, see Appendix C .

The decision to prepare an EIS requires the proponent to select a lead agency or cooperating agencies to have the

responsibility for EIS preparation. After lead agency selection is made, a public affairs plan is developed. The National Guard Bureau is the lead agency for ARNG actions at state level that have any federal funding. NGB may opt for the state to act as its joint lead agency or a cooperating agency.[93]

The precursor to actual EIS preparation is the scoping process. During scoping, the critical issues are identified by the proponent agency. This actually begins during preparation of the NOI. Additionally, the public is invited to comment and assist in developing issues to be discussed in the EIS. It is public involvement that directs the scoping process; and their input may take the form of written communication, telephone calls, or vocal comments at scoping meetings. The significant issues identified are further evaluated for type of action, alternatives, and impacts. This defines the scope of the EIS and the significant issues that require detailed analysis.

Based on the results of the scoping process, a draft EIS (DEIS) is prepared. The DEIS is forwarded to the HQDA proponent for distribution for review and comment. The draft is then returned to the preparer for revision and printing. The printed DEIS is again forwarded to HQDA for final review and filing with the Environmental Protection Agency. A notice of availability (NOA) is then published in the Federal Register, and the DEIS becomes subject to a 45 day period for public review and comment.

Responses to any comments made during the public review are incorporated into the DEIS to become the Final Environmental

Impact Statement (FEIS). The FEIS must be be provided to any person, organization, or agency that presented substantive comments on the EIS; then a notice of availability is filed with EPA for the FEIS. A 30 day waiting period is required after the EPA publishes the NOA in the Federal Register before a decision on the proposed action can be made.

After the waiting period, the decisionmaker can prepare a record of decision (ROD). This states the decision and then explains the rationale for selecting the alternative of choice. It is important to note that the alternative selected may not be the most environmentally sound. "NEPA does not require that the decision maker select the alternative that results in least impact upon the environment; it does require that the decision maker consider the environmental consequences, together with other factors, in the decision process."[94]

The NEPA process appears to some to be a major burden and roadblock to accomplishing a mission or completing an action. It requires that the environment be consdered during the planning and decision making process. It requires a systematic approach to environmental analysis. Often lack of baseline data to compare "where we are" to "where we were" to "where we'll be" forces additional analysis during an EA or EIS that causes delays, additional costs, and other aggravations. Inclusion of the public during scoping and comment also may not be a particularly pleasant experience. Incorporating NEPA into Army decisionmaking has not and will not be an easy, simple process.

But NEPA is law, and environmental compliance is the way the Army does its business.

When the NEPA process leads to an EIS, it frequently involves an Army training activity. Whether for range construction, troop billets, access roads, or maintenance facilities, proposed action at a major training area (MTA) tends to generate an EIS. Public involvement during the scoping process may lead to concerns about noise, wetland protection, endangered species, water pollution, hazard waste, and other environmental issues. Consider that MTAs are public domain, albeit controlled, with perhaps prime forests, good fishing waters, and excellent hunting areas. The public also lives near MTAs and much that goes on inside the fence can effect those outside. In addition to the public, federal, state and local government agencies may have interest in proposed training area activities, and the impact on laws and regulations within their purview to enforce.

The Army National Guard has experienced varying degrees of success in EIS preparation. Three MTA examples include Camp Grayling, Michigan; Orchard Training Area, Idaho; and Camp Shelby, Mississippi.

At Camp Grayling, the Michigan National Guard proposed a range upgrade project. Scoping that was done in 1986 and 1987 generated considerable public comment about noise, land use, groundwater contamination, and environmental damage. In response to some of these concerns, training activities were modified,

procedures for public notification of scheduled training were implemented, and groundwater monitoring wells were drilled. The Michigan Department of Natural Resources restricted training activity within a bald eagle nesting area.[95] Another training restriction results from the Kirtland's warbler, an endangered species known to nest only in immature jack pine forests at Camp Grayling. As of this writing, the final EIS is still pending.

The Idaho Army National Guard (IDARNG) sought to upgrade an existing range, construct a new mobilization and training equipment site, and construct an ammunition storage point at Orchard Training Area. OTA is unique because the property belongs to the U.S. Bureau of Land Management (BLM), and training is done there through a Memorandum of Understanding between IDARNG and BLM.[96] Before starting the EIS, the Idaho Guard with NGB assistance initiated an environmental management and analysis program and obtained technical information which described existing conditions and baseline data (this program evolved to ITAM). By January 1987, the EIS was started, but controversy over a raptor nesting area intervened. After early confrontation, a working group including an environmentalist, two BLM representatives, and the IDARNG Chief of Staff sorted through the issues and developed a strategy to appease opponents. The EIS was approved, the ROD published, and construction has been completed.[97]

A draft EIS was published for a Camp Shelby action in November 1991. The proposed action concerned the continued and

reconfigured use of land within the DeSoto National Forest in Mississippi for military training. The EIS examined environmental consequences of existing military training activities, environmental effects proposed military construction, environmental impacts of proposed changes to armor and mechanized training activities, and the cumulative effects of past, present, and proposed Army activities from a land management perspective. The U.S. Forest Service was involved in the EIS because of military training on national forest land. Based on the final EIS findings, the Forest Service will decide the level and types of military training that will be permitted and included in their Special Use Permit. ITAM played a key role in the environmental analysis for the EIS.

Training activities conducted by the Army National Guard, whether at an MTA or elsewhere, are federally funded. These training activities must be reviewed within NEPA guidelines to determine potential for impacting the environment. Situations often overlooked and with the potential for significant environmental backlash are those training activities occurring at small garrison or weekend training areas. These training areas include both public and private land, such as county or state parks or a farmer's wooded acreage. Permission to use these lands aside, environmental documentation for their use is mandatory.[98]

Many of these small training areas are the "bread and butter" of unit weekend training. Without them, unit training

may be difficult and individual proficiency and unit readiness may suffer. Lack of NEPA documentation could generate a court order to cease and desist their use. Moreover, the unit commander may have assumed substantial liability for the ARNG and significant personal liability as well. The civil and criminal penalties for violation of environmental statutes may include fines ranging from $10,000 to $25,000 per day and incarceration from one to fifteen years.[99] Fines levied against the ARNG on state or private land may not be paid with federal funds; fines levied against the commander become a personal obligation.

Early environmental review of all training plans is critical. The yearly training schedule for a state Army National Guard should receive environmental assessment during the planning process. Routine activities may result in an FNSI, and those activities with probable environmental impact must result in an NOI to complete an EIS. Problems identified in the planning phase may be mitigated or avoided by considering alternate courses of action, a NEPA requirement. For example, training cancelled because of endangered species nesting may very well have been possible had it been scheduled at another location or at a different time of year.

The NEPA documentation process can be costly in terms of time and money. An EA can range in cost from $10,000 to $100,000 and take 90 to 180 days to complete. An EIS usually takes at least a year to complete at a cost in excess of $1 million, and may take much longer and cost more depending on the type of

proposed action and the concerns voiced by the public. Federal funds can be used for NEPA documentation only after the projects required to correct noncompliance situations (Class I projects) have been fully funded. To ensure adequate funding, NEPA documentation must be included as an integral cost when requesting funds for a future action.[100]

NEPA has been discussed primarily with training in mind, but the process should be included in other activities as well. New equipment going through the research, development, test, and evaluation process should be considered for environmental impact. Concerns for noise, exhaust emissions, weight, and hazardous wastes (fuel, oil, etc.) should be addressed during the early planning. Environmental specifications should be available for those involved in planning equipment fielding, stationing, and training. Army force managers should consider the environment when developing force structure and planning unit conversions, activations, and upgrades. Training and equipment requirements involved in force structure changes may cause less environmental impact at one installation versus another.

The NEPA documentation process, simply stated, is environmental planning; and environmental considerations should be integrated into all aspects of planning from concept, through design, through construction or production, to disposal. Cradle to grave environmental planning, done correctly, with environmentally sound decisionmaking, will meet the intent of the National Environmental Policy Act and AR 200-2.

CONCLUSIONS

The Army and the National Guard have both been committed to be the leader among all federal agencies in environmental compliance, stewardship, and protection. That is perhaps a grandiose goal in this time of budgetary restraint, but is it really? Compliance with environmental laws, pollution prevention, and stewardship are not necessarily costly budget items. They are common sense and environmentally conscious approaches to operations and planning, unit and individual training, maintenance, and logistics. Restoration, however, is truly a mindboggling, resource intensive commitment to right past environmental wrongs; and will likely haunt the Army, DOD, the United States, and the world well into the next century.

The Army is pursuing an environmental program of compliance, restoration, prevention, and stewardship. All aspects of the program have begun with good indications of success. Provided that the environment continues to enjoy a commitment from Army leadership, the environmental program will no doubt pay big dividends in restoring, protecting, and caring for the Army's share of the environment.

The Army has pledged to achieve environmental compliance with all environmental laws and regulations, federal, state, and local. The National Guard Bureau has forged ahead in support of that commitment in establishing an Environmental Resources Management Office filled with people of foresight willing to confront environmental issues rather than react to them.

When the Army established the Environmental Compliance Achievement Program; training, planning and programming, resourcing, assessing, and deficiency correction were brought together under a single umbrella program. The Environmental Compliance Assessment System, which evolved from ECAP, was adapted to the ARNG as ECASARNG. The ARNG has become the lead ECAS agency with the program formally in place and several evaluations in progress.

Meeting the ECASARNG objectives is a goal for which there is much optimism. The objective to establish an ARNG-wide environmental compliance assessment standard has been met. The other objectives are dependent upon the quality of the ECASARNG evaluations and how the information gathered is used and received. The Adjutant General and his staff must take this information and, working with the consultants and NGB, establish an environmental program with goals and actions to achieve compliance. Then when the state ARNG requests funds to accomplish the compliance action, NGB must support the request to the fullest extent possible.

NGB funding of environmental projects is of course limited by the environmental budget. This does not mean, however, that environmental compliance is a factor of available environmental funding. Law may mandate that compliance must be accomplished, and that may mean taking other operations and maintenance money to do it. Use of other than environmental compliance funds to achieve compliance may impact training or maintenance. Lack of

command support and foresight could well impact ARNG readiness.

Environmental restoration will continue for years and cost perhaps hundreds of billions of dollars to complete. Surveys have been accomplished at active Army installations, but the ARNG installations and facilities still require scrutiny. The ARNG restoration requirements will be determined by ECASARNG.

An objective of ECAP not specifically included in ECAS is environmental training. The need for all soldiers to have an environmental awareness is paramount. Only then can the requirement for compliance and the consequences of noncompliance be fully appreciated, and the importance of pollution prevention and environmental stewardship be understood and practiced. Senior service colleges, TRADOC schools, U.S. Army Reserve Forces schools, state military academies, and regional training sites all could provide the means to accomplish environmental training.

Environmental compliance continues by satisfying the requrements of the National Environmental Policy Act. For the Army, NEPA requires the commander to consider the potential environmental consequences of a proposed action during the decision making process. Actions with potential for environmental impact require an environmental assessment, and EA findings may necessitate an environmental impact statement. If an action is found to have significant environmental impact, NEPA requires consideration of alternate courses of action during the EIS and involvement of the public. Only by complying with NEPA requirements will a record of decision be valid.

The NEPA compliance problem unique to the ARNG concerns use of local garrison or weekend training areas. Many have not been evaluated under NEPA, and there is potential for ARNG and the commander's personal liability for use of these training areas. Loss of the local training areas can be detrimental to unit and individual training proficiency. NGB must work with the states to ensure NEPA documentation is part of training planning.

The objectives of NEPA listed under Title I of the act could just as well be defining environmental stewardship. Perhaps that is why Integrated Training Area Management fits so well into the NEPA process. The land management information generated by ITAM can provide the baseline data needed to adequately evaluate environmental impact of a proposed action, and generate alternate courses of action. ITAM as a separate program promotes good land management to reduce erosion, avoid environmentally sensitive areas, reduce training signature, and improve training realism. The Army and ARNG have experienced such success with ITAM that the program should be implemented at all major training areas.

Finally, environmental compliance includes reducing and preventing hazardous waste. The Hazardous Waste Minimization Program will reduce hazardous waste by 50 percent. Effort must be directed toward reducing the potential for spills, leaks, and excess waste by education and controlling quantities of hazardous and potentially hazardous materials both stored and procured.

APPENDIX A

The seventeen protocols of the Environmental Compliance Assessment System for the Army National Guard (ECASARNG):

- Clean Air Act
- Clean Water Act
- Safe Drinking Water Act
- Resource Conservation and Recovery Act Subtitle C (Hazardous Waste)
- Resource Conservation and Recovery Act Subtitle D (Solid Waste)
- Resource Conservation and Recovery Act Subtitle I (USTs and POL)
- Comprehensive Environmental Response, Compensation, and Liability Act
- Toxic Substance Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act
- Historic Preservation and Cultural Resources
- Endangered Species Act and Natural Resources
- National Environmental Policy Act
- Asbestos Abatement
- Noise Abatement
- Radon Abatement
- Environmental Program Management
- Hazardous Materials Management

APPENDIX B

A proposed action requires an EIS when it has potential to:[101]

- Significantly impact environmental quality or public health or safety.
- Significantly impact historic or archaeological resources, public parks and recreation areas, wildlife refuge or wilderness areas, wild and scenic rivers, or aquifers.
- Adversely impact properties listed or meeting the criteria for listing in the National Register of Historic Places, or the National Registry of Natural Landmarks.
- Significantly impact prime and unique farmlands, wetlands, floodplains, coastal zones, or ecologically or culturally important areas or other environmentally important areas.
- Result in potentially significant and uncertain environmental impacts or unknown or exceptional environmental risks.
- Significantly impact a species listed or proposed for listing as a Federal endangered or threatened species.
- establish a precedent for future action or an intent for a future study having significant environmental impact.
- Interact adversely with actions having insignificant impacts to result in cumulatively significant impacts.
- Involve the production, storage, transportation, use, treatment, and disposal of hazardous or toxic materials with potential for significant environmental impact.

APPENDIX C

The following Army actions normally require an EIS:[102]

- Significant expansion of a military facility, such as a major training installation, munitions plant, or a depot.
- Construction of facilities having signifcant impact on wetlands, coastal zones, or other environmentally critical areas.
- Disposal of nuclear materials, munitions, explosives, chemicals, or other toxic or hazardous materials having the potential for significant environmental impact.
- Life cycle development of new materiel that requires construction and operation of new fixed facilities or significant commitment of natural resources.
- Land acquisition, leasing, or other actions that may significantly alter land use.
- Realigning or stationing a table of organization and equipment (TOE) unit of brigade size or larger in the continental United States during peacetime.
- Training exercises conducted outside the boundaries of an existing military reservation, where damage to the environment may be significant.
- Major changes in the mission of a facility which may either cause significant environmental impact or further influence areas of critical environmental concern.

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56. McIntire, The Big Spill, p. 18.

57. Ibid.

58. Werle, p. 6.

59. McIntire, "Military Bears Cleanup Burden," p. 14.

60. Grossman, p. 64.

61. Steinburg, p. 29.

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65. "Uniformed Guardians Answer the Environmental '911' Call," Officers' Call, September-October 1991, p. 20.

66. Goldstein, p. 17.

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